

**ABSTRACT OF THE DISCLOSURE**

[0058] A wireless communication device (WCD) estimates frequency error by averaging frequency error estimates over multiple integration lengths to generate short-term and long-term averages. The WCD compares the short-term and long-term averages with short-term and long-term thresholds. The long-term thresholds are lower than the short-term threshold. If the average for any integration length exceeds its respective threshold, a frequency offset is determined and an oscillator frequency is adjusted based on that frequency offset. The use of both short-term and long-term thresholds facilitates responding quickly to relatively large changes in the frequency error, while ignoring smaller changes that may be indicative of noise in the system rather than actual changes in the frequency error.